

## PHOTOGRAPHS <sub>QF</sub>

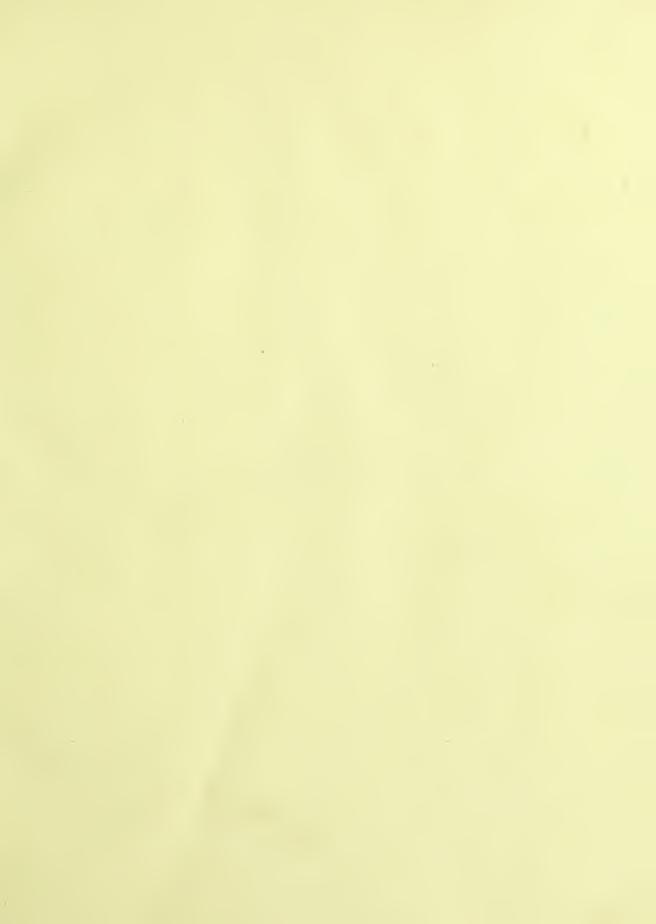
# LEPROSY

BY

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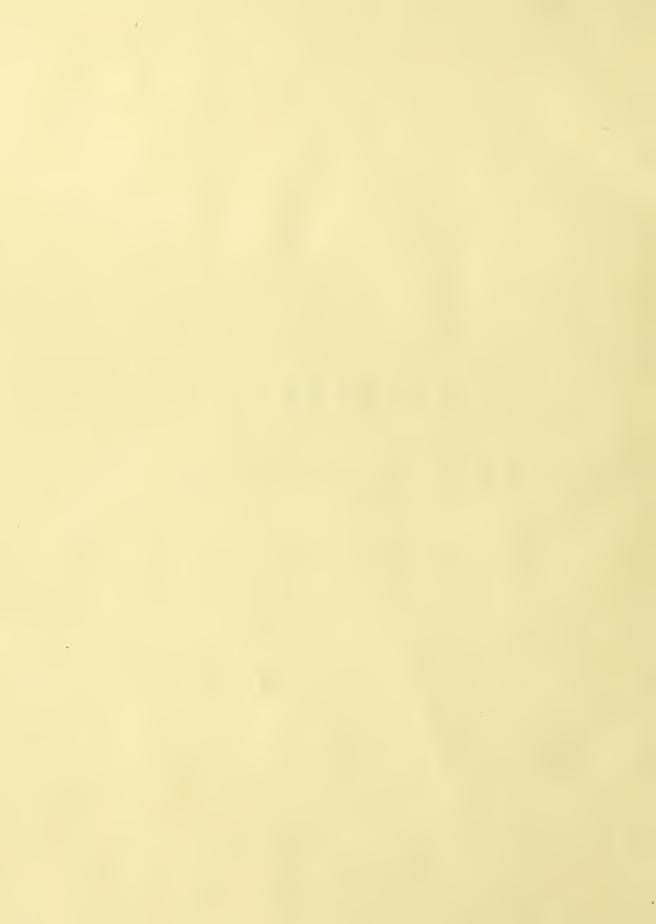


# LEPROSY

IN THE

STRAITS SETTLEMENTS

1871



# PHOTOGRAPHS

(COLOURED)

OF

# LEPROSY

AS MET WITH IN THE STRAITS SETTLEMENTS.

With Explanatory Aotes

 $\mathbf{BY}$ 

A. F. ANDERSON, M.D.,

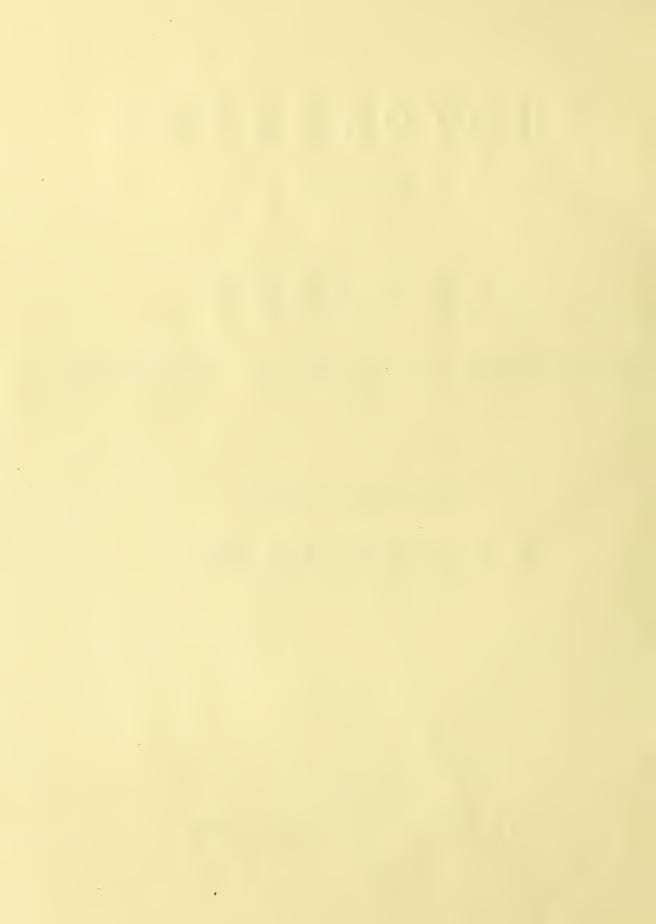
ASSIST. COLONIAL SURGEON, SINGAPORE.



LONDON:

J. & A. CHURCHILL, NEW BURLINGTON STREET.

1872.



## GEORGE BURROWS, M.D., F.R.S.,

PHYSICIAN-EXTRAORDINARY TO THE QUEEN,

AS PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON,

These Plates

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### PRELIMINARY REMARKS

ON

## LEPROSY

IN

#### THE STRAITS SETTLEMENTS.

The following series of Plates illustrating Leprosy were prepared in the hope that they might give a better idea of this disease as met with in the Straits Settlements than any mere written description could afford; whether that object has been accomplished or not I must leave to better judges than myself; this I may say, however, that those resident in the Straits, who are acquainted with the general aspect of this disease recognize their truthfulness.

The Chinese, the class to whom this form of Leprosy is almost entirely confined, come chiefly from Amoy, Macao, or Shanghai, and on arrival they are employed in various branches of industry, as coolies on the different estates or plantations, or as ordinary coolies about the towns, while some who have acquired a knowledge of any particular trade follow it in preference.

Of the whole number of Chinese resident in the Straits, a very small proportion is affected with Leprosy, although it would appear greater from the fact that the sufferers, who are entirely dependent upon charity, must frequent the districts most densely populated, and hence, being daily prominent in our streets, we are apt to exaggerate their number. From enquiries amongst the most intelligent and longest resident Chinese, I learn that the disease does not appear to be on the increase; there are, however, a good many who, being in tolerable circumstances, and not requiring to live on charity, are rarely seen in public.

Leprosy as met with in the Straits may be divided into the Tubercular, and Dry or "Anæsthetic" forms, and they chiefly differ in the extent of the tubercular appearance presented over the surface of the body, the second variety having it only on the ears and about the nipples.

The symptoms of Leprosy from the history of the cases now illustrated seem to have commenced very gradually, and almost imperceptibly, with a prickling sensation in the face, a symptom which continued for some time without attracting much attention; after a variable interval the skin became tense and shining, commencing usually in the lobes of the ears and extending to the sides of the face and nosc. The lobes of the ears became pendulous, the alæ of the nose enlarged and thickened, the nipples lengthened and flabby, and gradually the whole external surface of the person is covered in the one variety with tuberculal nodules, and in the other with a dry, scaly skin. The "tubercles" are not very prominent nor well defined; they are more diffused, and present more the appearance

of an abnormal and irregular thickening of the entire skin, particularly over the face and abdomen. There is little pain or uneasiness except in some cases where there is a good deal of pruritus. The aspect of the face is much altered: there is a peculiar anxious expression, due not so much to the effect of pain as to the deposit, causing distortion in the features; the voice is changed, having a harsh, rough sound; there is increased discharge from the nostrils, and in fact the whole mucous membrane is more or less affected. There is a feature belonging to this disease I think yet unnoticed, viz.: — the existence of a peculiar odour emitted from the persons of those affected by it, it is as distinct as that from the small-pox or typhus fever. The Ulceration commences in the tips of the ears, then follow the toes and fingers, the nose and other portions of the body; these ulcerations are frequently unaccompanied by pain, even though sloughing takes place; in others again, the pain is very severe, and especially so at night; nocturnal pains are also common in the bones. The whole system participates in the morbid symptoms, the digestion is impaired, the nervous force deficient, and the circulation lowered. In those cases I have seen, anæsthesia was never a very prominent sympton, it occasionally existed, but limited to the extremities and over portions of the abdomen. When the ulceration had gone so far as to prevent locomotion, diarrheea took place, emaciation followed, and though the appetite was generally good to the last, the patient gradually sank until worn almost to a skeleton when death came to give relief.

There is one peculiarity in these Leprous patients alluded to in the notes attached to Plate No. 2, viz., the absorption of some of the digital phalanges. This is by no means uncommon; the end of the third phalanx, the whole of the middle, and the end of the first become absorbed, the nail with the terminal portion of the third being placed on the remaining extremity of the first phalanx, continuing attached with the metacarpal bone. I have never seen this absorption extend to the metacarpal bones, but the sloughing of the entire fingers may be followed by partial sloughing of the metacarpus as well. In connection with this peculiarity I may mention that, when doing duty for a short time in Malacca, I visited the Lepers at that place, who reside on an Island a few miles from the Mainland, and found amongst them the following cases, showing very well this interstitial absorption:—

In the first case, all the fingers of the right hand had been subjected to the absorption above alluded to, a slight depression only showing where the nails had previously existed, while in the little finger alone the nail was present.

In the second, the toes had been affected by a similar absorption, the terminal phalanx joining the metatarsal bone, and the flexor tendons of the left hand much absorbed and contracted without ulceration.

In the third case, the third and fourth toes of the left foot were absorbed in the same manner, the others having sloughed off.

In the fourth there was absorption of the digital bones, leaving the nails quite perfect and joining the metacarpal bones.

I have never seen Leprosy in the female, although it is not likely that the sex can be free from it, such cases are most probably concealed, indeed I have reason to conclude that they are.

A good deal has been said about the contagiousness of Leprosy, both pro and con, some firmly believing that it is, others as stoutly maintaining that it is not. This is a point which, with all due deference to much superior intelligence, does not appear to have been at all

satisfactorily settled. I cannot but help thinking it still an open question, seeing that so many lepers in every stage of the disease, have for so many years been in the habit of mixing to a certain extent with the rest of the population in these Settlements, consisting, as it does, of nearly all the races to be met with in the East, and yet comparatively few are affected; we find Lepers shouldering us in the streets, squatting on our door-steps, upon which the discharge pours from open ulcers, with which most of them are affected, from whose skin scales fly off with the breeze, and emanations from whose bodies we inhale with every breath when in their vicinity; were it therefore as contagious as some would have it, we should be inclined to think that the disease would be propagated much more manifestly and extensively than it is. The idea, therefore, of its being contagious is certainly one concerning which we require much better information than we now possess. That it may be propagated by inoculation I can well conceive, and believe also, from all I can gather, that it is hereditary.

In Singapore, Lepers are lodged in a wooden thatched house or hospital, capable of containing forty patients; it is well ventilated, and situated about two miles from the town, being raised some five feet from the ground, it is placed, however, on low, swampy ground. This building is in charge of the Government, and is supported in the same manner as the Pauper Hospital, which is about half a mile distant.

In Penang, where there is no such Government Hospital for Lepers, they congregate in a large thatched shed, where thirty or forty Lepers find an abode.

In Malacca, the Lepers are placed on an Island about five miles from the main land, as I have already mentioned, here they wander about fishing, or tending small gardens, provisions being periodically sent them from Malacca.

In Singapore and Penang, Lepers go about the streets begging, and become a perfect nuisance; it is impossible to prevent this with the present means at our disposal; they can come and go as they please, and until some regulations are in force, to attempt any systematic course of treat-Should it, therefore, be necessary to segregate such Leprous paupers as ment would be useless. we have, the choice of a locality is of the greatest importance. Placing them on an island in the vicinity of the Settlements would be the simplest method of disposing them; such an island must not only be convenient of access, but should be situated so as to obtain as much as possible the sea breeze, it should also have a fair soil, sufficient for the cultivation of vegetables in ordinary use, a good fresh water supply, and facility for drainage; and besides, what is of great importance, freedom from malaria. For my own part, I should prefer an inland hilly situation, where there would be no exposure to malarious emanations, and where good drainage could be easily obtained, were it not that in such places there would be great difficulty in keeping the patients within bounds, and preventing them from gaining possession of prohibited articles of diet, this being at present one of our greatest drawbacks in treating these people. The segregation of Lepers, though not demanded for the purpose of preventing infection, would, at all events, be of immense benefit to themselves (as far as comfort was concerned) and to the public convenience, at the same time affording the only plan which will give us a chance of at least greatly alleviating their sufferings, if not curing them.

The causes of Leprosy, as far as we know, seem to be the influence of marshy effluvia, bad

and insufficient diet\*; sleeping in close, damp, and badly-ventilated houses; an hereditary taint; and in some cases direct inoculation. These in certain constitutions would appear to be the prime causes of *true* Leprosy.

As to the treatment of Leprosy, I can say very little, and nothing with confidence; we have hitherto got the disease in the Straits only when in an advanced stage, and in such cases there is almost nothing to be done, except giving nourishing diet and palliative medicines; besides, as yet, we have not had sufficient control over the patients to enable us to do much for them in following out any systematic course of treatment, though we believe the Government contemplate some measures in connection with the pauper question, and it is probable this difficulty will be got over.

Considering the disease as a constitutional one, I am of opinion that mere local remedies cannot effect any permanent good. Internal medicines, as mild mercurials, preparations of iodine, alkalis, and tonics are certainly indicated. When anæsthesia is a prominent symptom, neuro-tonics, combined with the above, are useful, and a bath of soap and water followed after thoroughly drying the skin, by friction with the oil of Sesamum Indicum+, carefully prepared, is, I think, preferable to any other inunction, as to a great extent it preserves the skin from attacks of flies, mosquitoes, &c. Carbolic Acid would be a useful adjunct to the Sesamum oil. I have no experience of the action of the oil of Cashew-Nut nor of the strong solution of Nitrate of Silver and Copper, as mentioned by Dr. Bakewell in his report on Dr. Beauperthuy's mode of treatment.

But as I have already said, we must have some control over the parties, otherwise our attempt will be abortive. As regards diet, the Chinese are exceedingly obstinate; they will have salt fish and pork, with salted vegetables in a state of putridity; the other native races are more amenable to reason in the matter of diet, and I may remark here, that in the treatment of Leprosy, diet is of the greatest importance.

The treatment of this disease will also be immensely facilitated, and have also, I think, a fair success, if we can persuade Leprous patients to come early under treatment; this will only be done by judicious management, and avoidance of anything which would excite the prejudices of the classes of natives from which the Lepers chiefly come. This practice has already been done in Singapore with Vaccination, followed by the happiest results; I have no doubt a like success will attend in the case of Leprosy, and if a cure cannot be obtained, there will, at all events, be a great amelioration in the condition of these unfortunates.

The Leprosy, identical with this under consideration, prevalent in Europe during the Middle Ages, and common then in our own country, has almost disappeared, no doubt owing to an improved sanitary condition and better diet, and I sec no reason, therefore, to doubt that in time we shall find it as rare in the East as it is in Great Britain.

<sup>\*</sup> The lower class of Chinese, it is well known, consume quantities of putrid animal and vegetable matter at their meals.

<sup>†</sup> Sesamum Indicum-Tilseed or Gingellie.









Wong Ah Peng. At. 38. Native of Macao. Resident 8 years in the Straits Settlements. Engaged for several years in the Tin mines of Perak (a native Province of the Malay Peninsula).

Has been ill altogether for 5 years.

States that the disease made its appearance first in the face, thence extending to the hands and feet.

The first symptom he complained of, was, a prickling sensation in the skin of the face; this was followed by pains in the joints and bones, becoming aggravated during rainy or damp weather.

In this man the ulcerations are not very extensive or severe, and he goes about in good spirits. The ulcerations are at present confined to the fingers of the left hand, the toes, and superficially over the anterior aspect of both lower legs.

The face, it will be seen from the Plate, is strongly marked with tubercular blotches, and this appearance extends over the whole abdomen, the nipples are pendulous; the hair on the head is very scanty and rapidly disappearing; the eye brows quite gone.

On enquiry, I find that the natural secretions are very little disturbed, his appetite, like all of this class of unfortunates whose subsistence depends entirely on charity, is always ravenous, but the bowels are said to be regular enough, and the tongue and pulse good.

Altogether this man presents a perfect type of the Leprosy in this place as occurring amongst the Chinese. The disease in this instance has not advanced to its last stage, it is in the very height of its development; and it is only in consequence of an evidently original strong constitution, that he has not succumbed further to its effects; he is quite contented and happy as long as he has enough to eat and tobacco to smoke.











#### No. 2 & No. 2a.

Cheng Ah Teng. Æt. 20. Native of Macao. 5 years resident in Penang.

Illness extended over six years, was consequently ill on arrival here, and has not been engaged on any work whatsoever in this Settlement.

In this case the disease commenced in the fect while still resident in China, and spread to the hands.

The face is entirely free from ulceration or even tuberculous blotches, but there is a peculiar anxious look about him, a symptom very common in this disease.

The feet are not nearly so extensively ulcerated as the hands, which are severely affected.

In several fingers, the whole of the second phalanx, a portion of the first and the third, have been entirely absorbed, leaving the extremity of the third phalanx, on which remains the criginal nail joined to the remainder of the first phalanx, the fingers so affected were then formed of one bone, Metacarpal articulation being intact.

The hair is scanty, and of a peculiar dry disagreeable appearance.

As in the case of No. 1, the natural functions are earried on pretty regularly.

I have no doubt that in this case, in no long time, a very extensive ulceration of the face will ensue and end his misery.











#### No. 3 & No. 3a.

Ong Ah Wong. Æt. 46. Native of Maeao. Has resided in Penang for the last 20 years. Worked here as a Gardener.

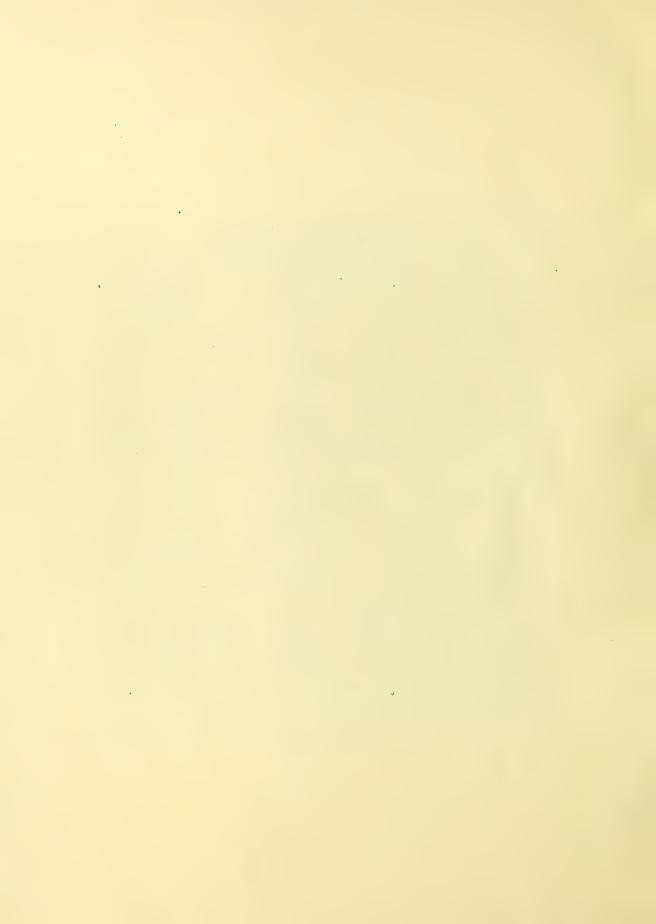
Has been ill for 7 years.

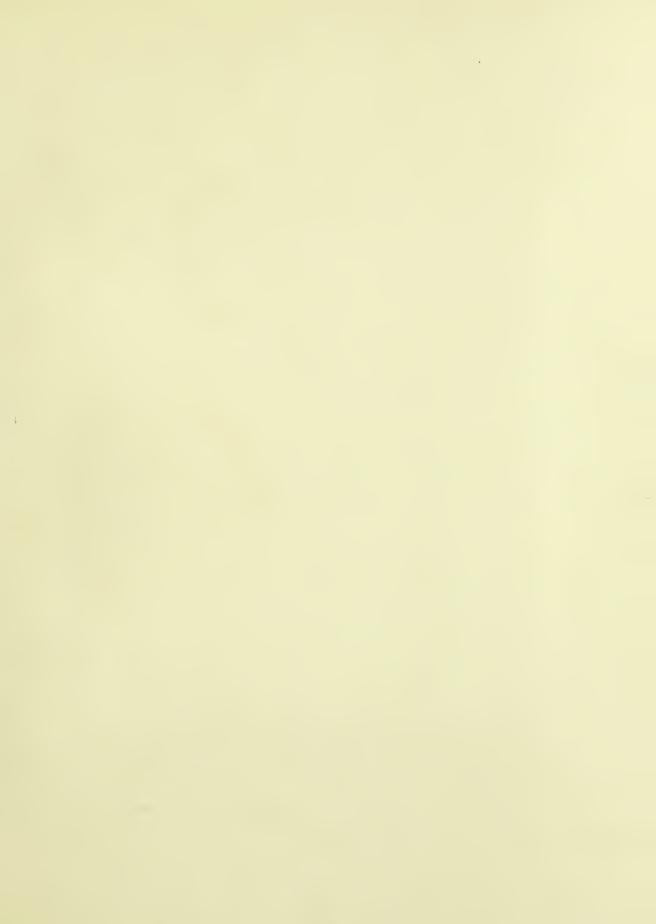
Disease first appeared on the face and commenced with a prickling sensation in the forehead; complains of the joints, and particularly those of the lower extremity, as being very weak; the appetite is good.

The face presents a nodulated, or tubercular appearance.

There are several points of ulceration on the fingers of both hands, the tendons being contracted, some on the palmar and others on the dorsal aspect, giving rise to considerable distortion and very imperfect use of the digits, a portion of the little finger of the right hand has sloughed off.

The extremities of the toes are also ulcerated, and the whole anterior aspects of the lower legs are covered with superficial ulcerations. The skin over the rest of the person has a dried-up appearance, and covered with seales.











## No. 4 & No. 4a.

Fong Ah Yim. Æt. 58. Native of Macao. Resident in Penang 12 years. Basket Maker.

Illness commenced 12 years ago, immediately after arrival here, but his trade being light he was enabled to work at it until within the last 3 or 4 years.

The disease commenced in the face with a prickling sensation, which afterwards affected the hands and feet successively.

The muscles of the chest and abdomen are much wasted, and the skin presents a dry puckered appearance, which is especially seen in the Plate at the lower edge of the pectoral muscle.

The extremities of the fingers, particularly those of the left hand, are the seats of ulcerations, though not to any great extent.

The ulcerations on the corresponding situations in the feet arc deeper, and there is a much greater loss of tissue.

The legs are slightly ædematous, and the skin there is also puckered and the seat of superficial ulceration.

The face presents the almost invariable nodulated appearance, and altogether this is a very good type of confirmed leprosy.











Fi Ah Choi. Æt. 33. Native of Macao. Resident 17 years. Worked as a carpenter.

Illness commenced 8 years ago.

This man was in a very advanced stage of the disease, and died shortly after the photograph was taken, so that no history of the premonitory symptoms is known.

The ulcerations had extended to the lips, nose and ears, the face has that anxious expression very common in Leprosy and the wasting of the muscular tissue is very apparent.

There was an extensive sloughing of the toes and sides of the feet. On the internal aspect of the right ankle the bones forming the joint were only covered by a thin hard scale, and all the toes on that foot had sloughed off; on the left foot, the great toe only remained, though its internal aspect was also ulcerated; on the upper surface of the tarsal bones of the left foot, the skin showed by a cicatrix that it had formerly been the seat of an ulcer\*; the anterior aspects of the lower legs were covered with superficial ulcerations.

The fingers of both hands were much affected, those of the right having entirely lost the two terminal phalanges, and on the palm there was a cicatrix exactly as if from a burn, the thumb was however perfect.

From the ulcers exuded a thick purulent matter having a peculiar disagreeable odour.

This man was extremely emaciated and moved with the greatest difficulty; there was however, no appreciable diminution of the appetite and the vital functions were, even at this stage, wonderfully regular.

<sup>\*</sup> In confirmed Leprosy it is said that a cicatrix is very rarely met with.











## No. 6 & No. 6a.

Tah Teoh. Æt. 30. Native of Fohkien. 6 years resident in Penang. Wood Cutter.

Illness of 5 years' duration.

The disease first appeared in the feet, gradually extending upwards on the legs.

The face is studded with tubercles, none of which, however, have ulcerated, and the skin, as in No. 4, is puckered, especially over the face, chest, and abdomen.

At present he complains only of an itchiness over the whole person.

The lower limbs, over the anterior surface are affected with deep ulcers; the toes of the right foot have sloughed off, with the exception of a portion of the great toe; on the left foot the ulcers and sloughs are much more limited. The entire lower extremities are very ædematous and he walks with great difficulty.

For such an advanced state of disease, he is on the whole less affected in his bodily appearance and powers of enduring such amount of exercise as is necessary when begging in the streets, than any of those I have yet seen, except No. 1.











## No. 7 & No. 7a.

Leh Ang Ghi. Æt. 46. Native of Macao. Carpenter. Resident in Penang for 20 years.

Has been ill 3 years.

I have no previous history of how the symptoms commenced, as he died a few days after the photograph was taken. He was greatly emaciated and extremely weak.

There were no ulcerations or tubercular blotches on the face, but the hands and feet were the seats of extensive ulcerations; the flexor tendons of the fingers were much contracted, from which cause he had very limited power in his fingers.

The legs and feet were cedematous, the latter having large deep ulcers covered with sloughs, some of which I removed before taking the photograph.

The pain and general debility were great, and locomotion impossible.

He had, with all this terrible state of matters, a very fair appetite.

